

FIG. 1

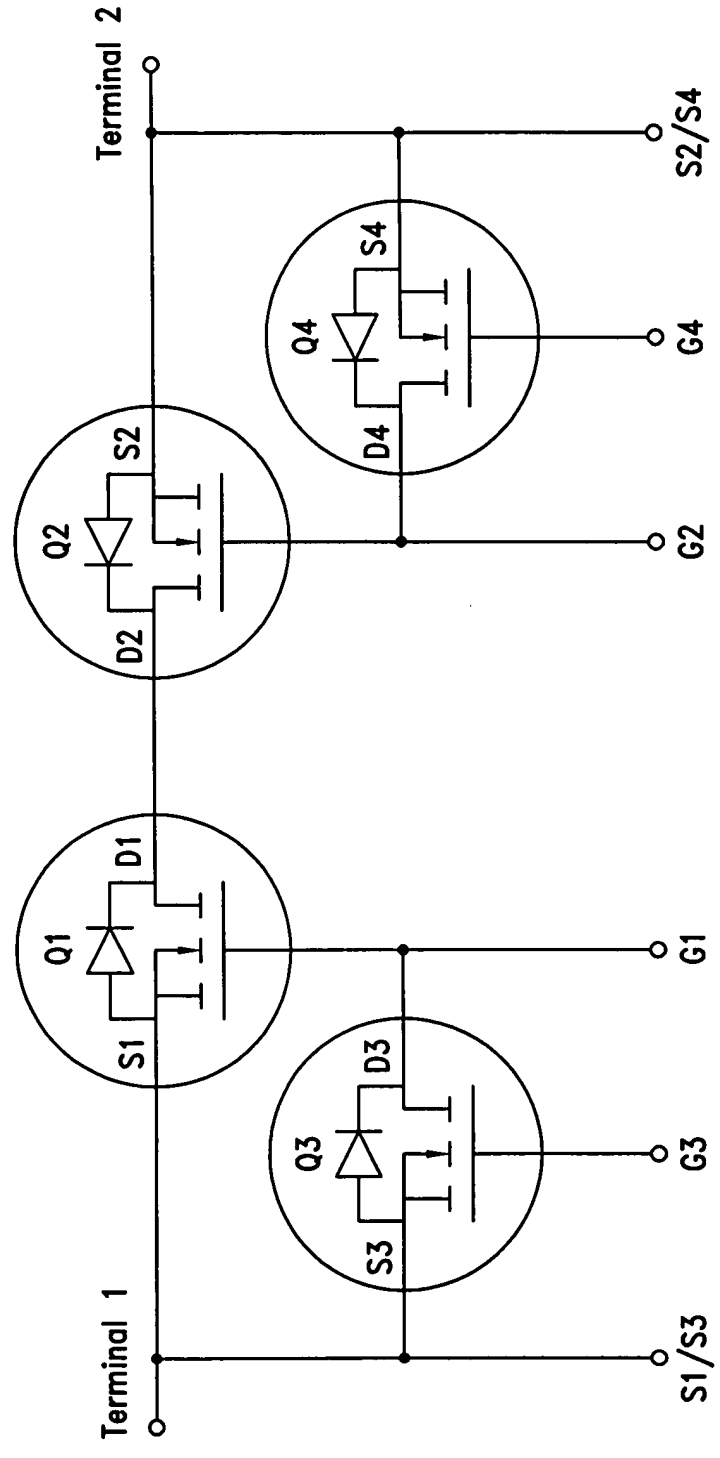
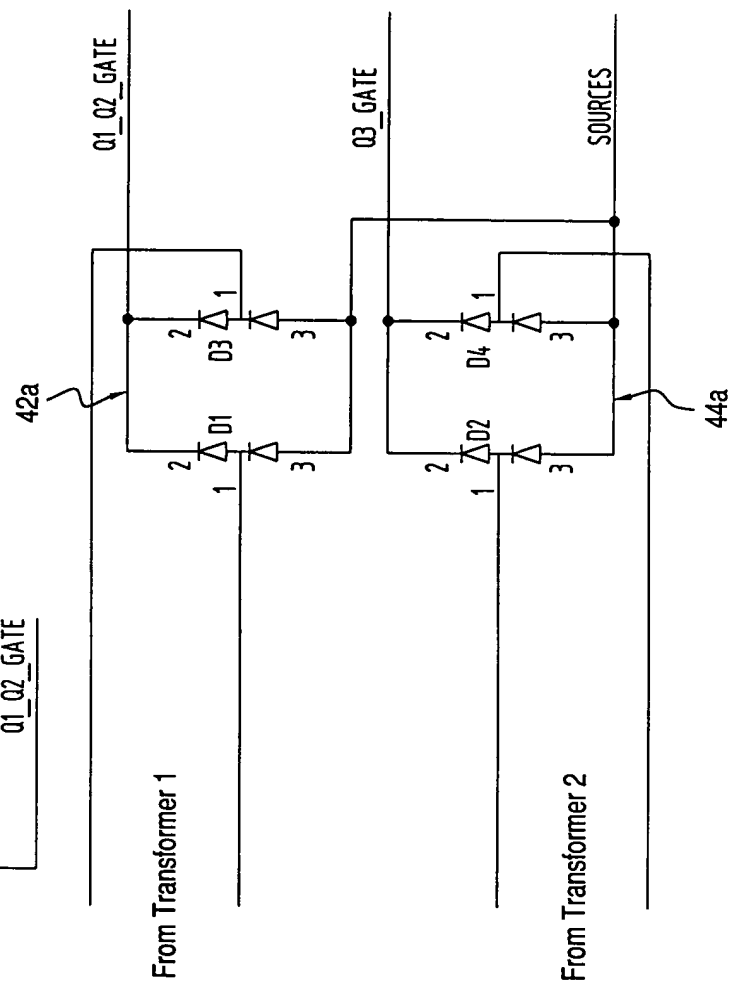
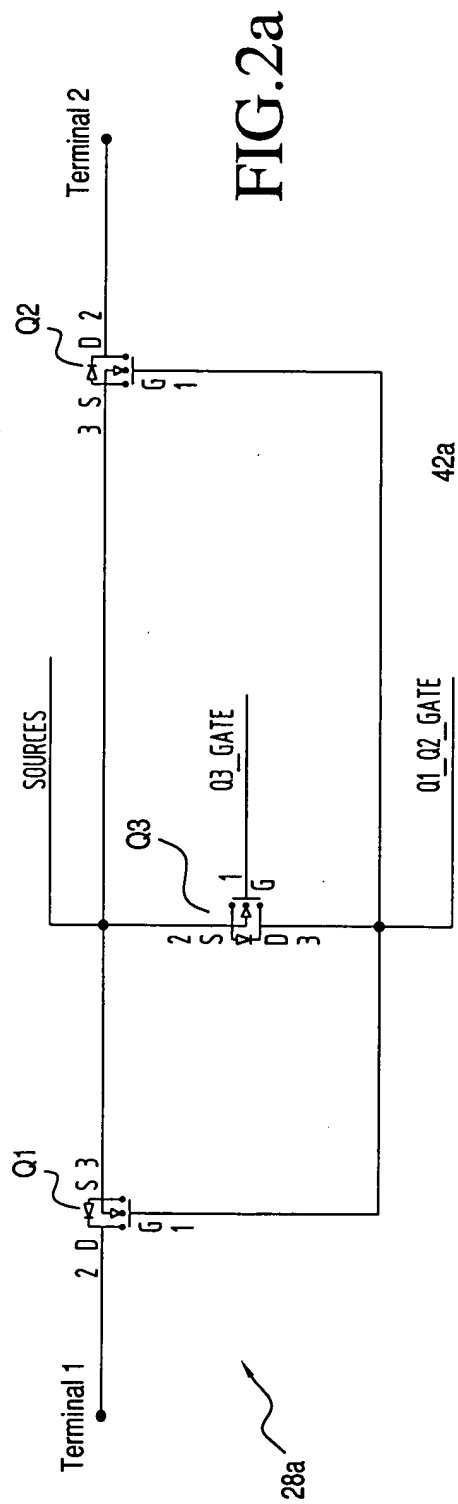


FIG. 2



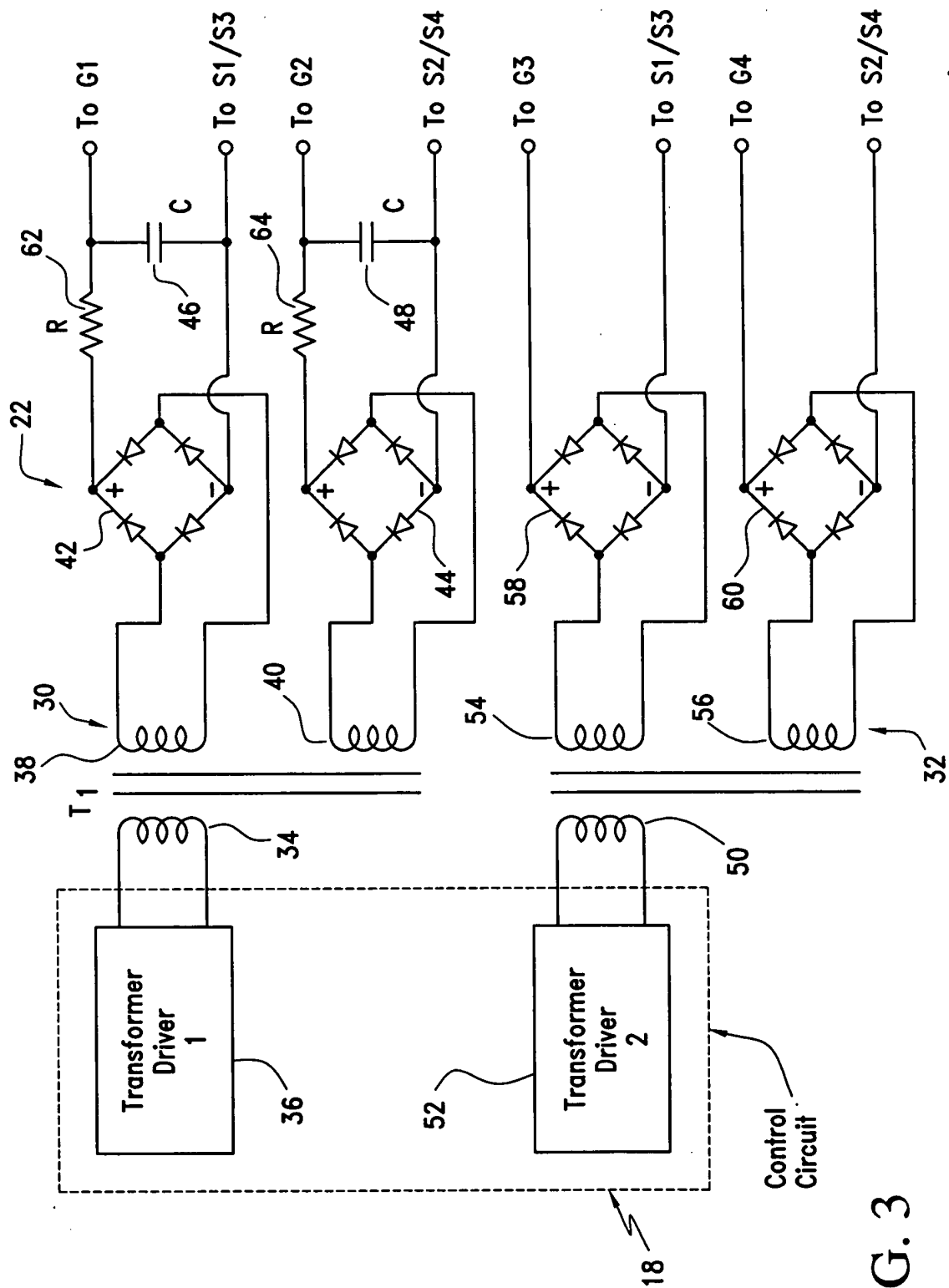


FIG. 3

FIG. 4

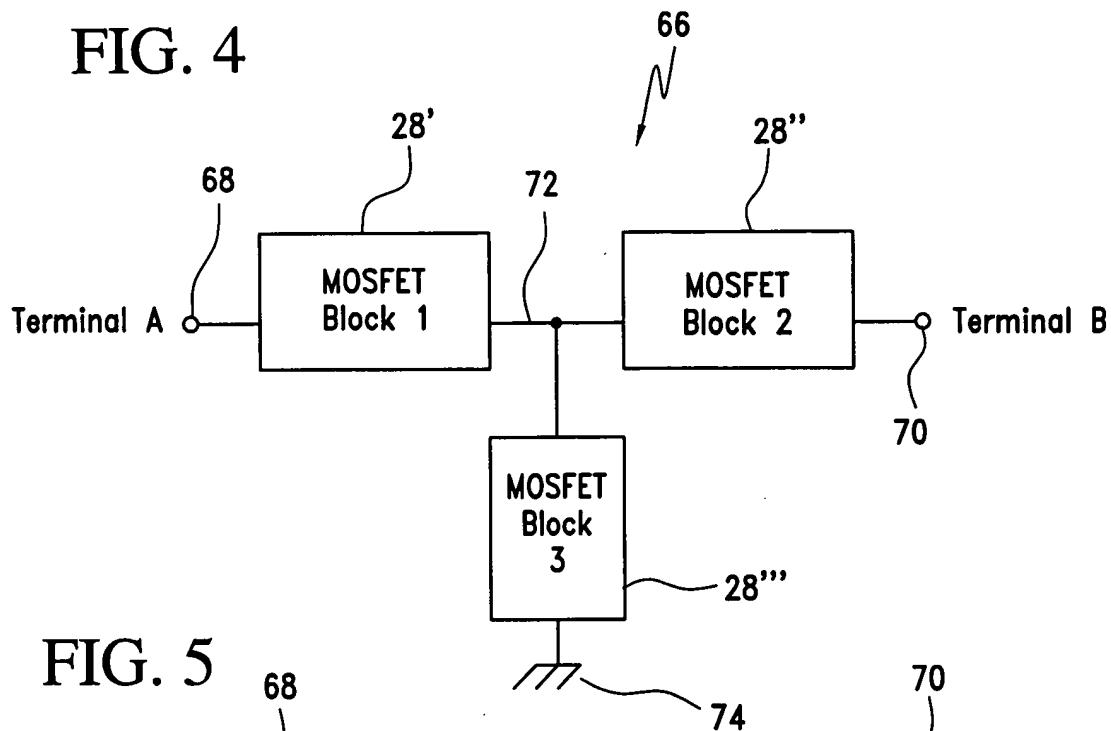


FIG. 5

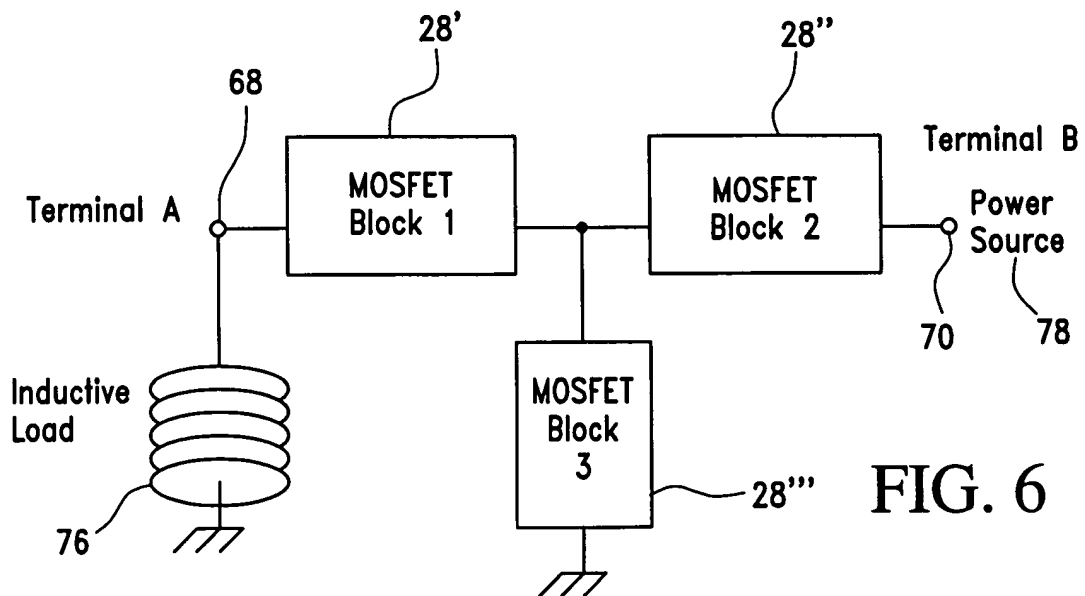
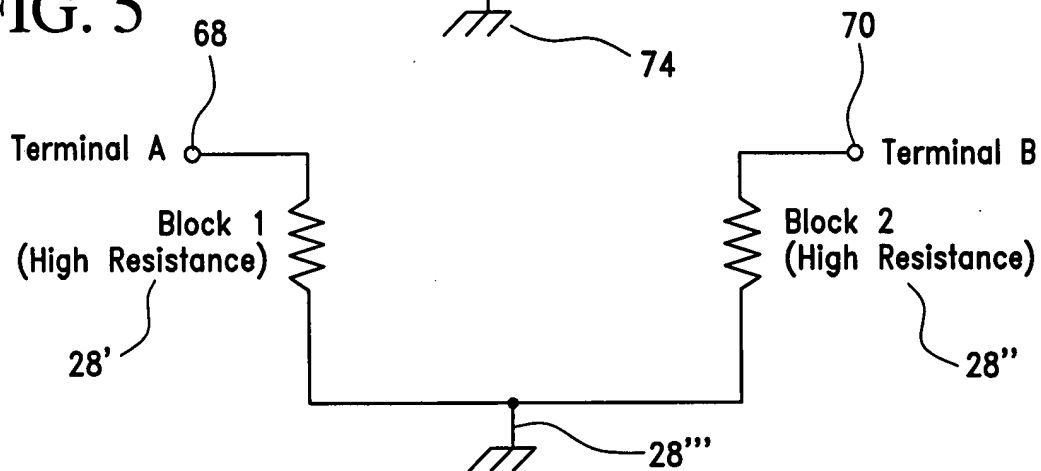
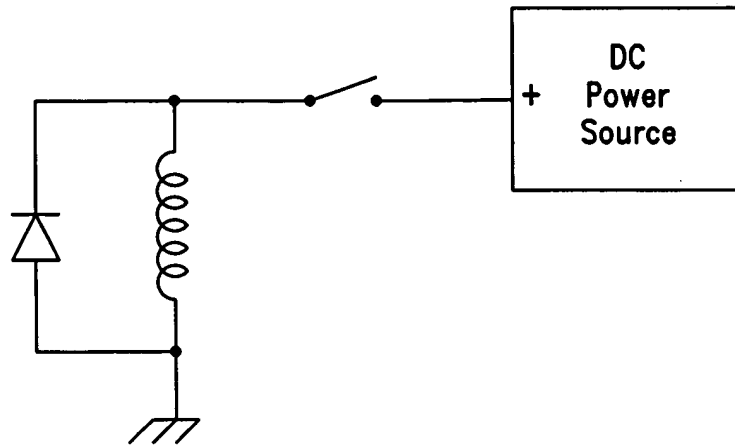
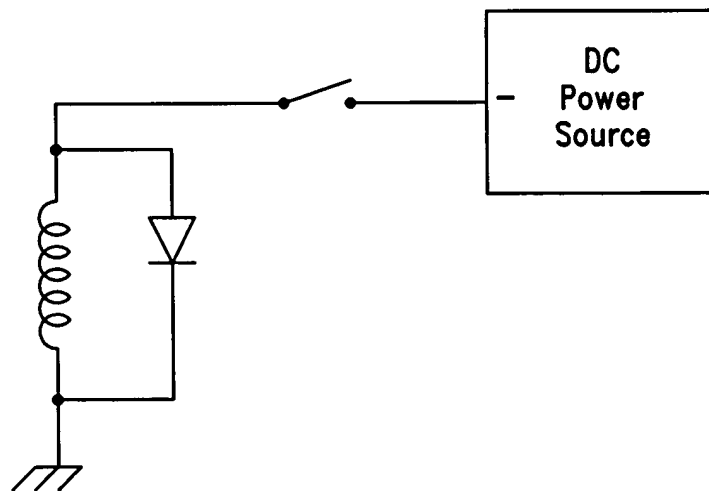


FIG. 6



Inductive load with positive power source
and discharge (or flyback) diode

FIG. 7
(PRIOR ART)



Inductive load with negative DC power source
and discharge (or flyback) diode

FIG. 7a
(PRIOR ART)

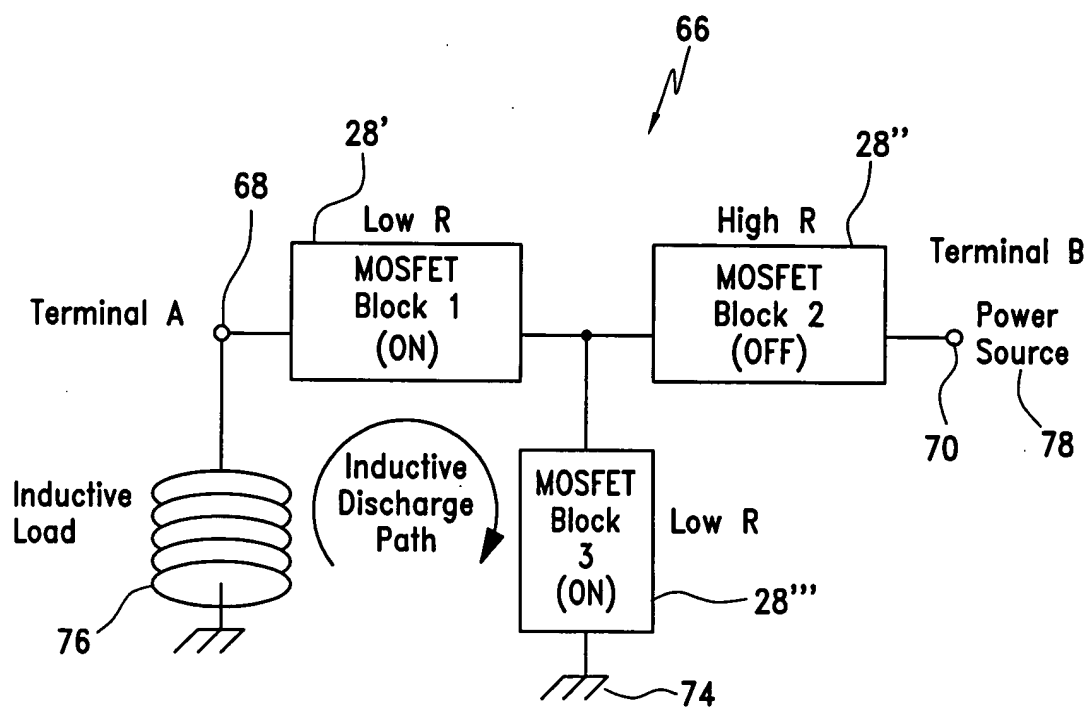


FIG. 8

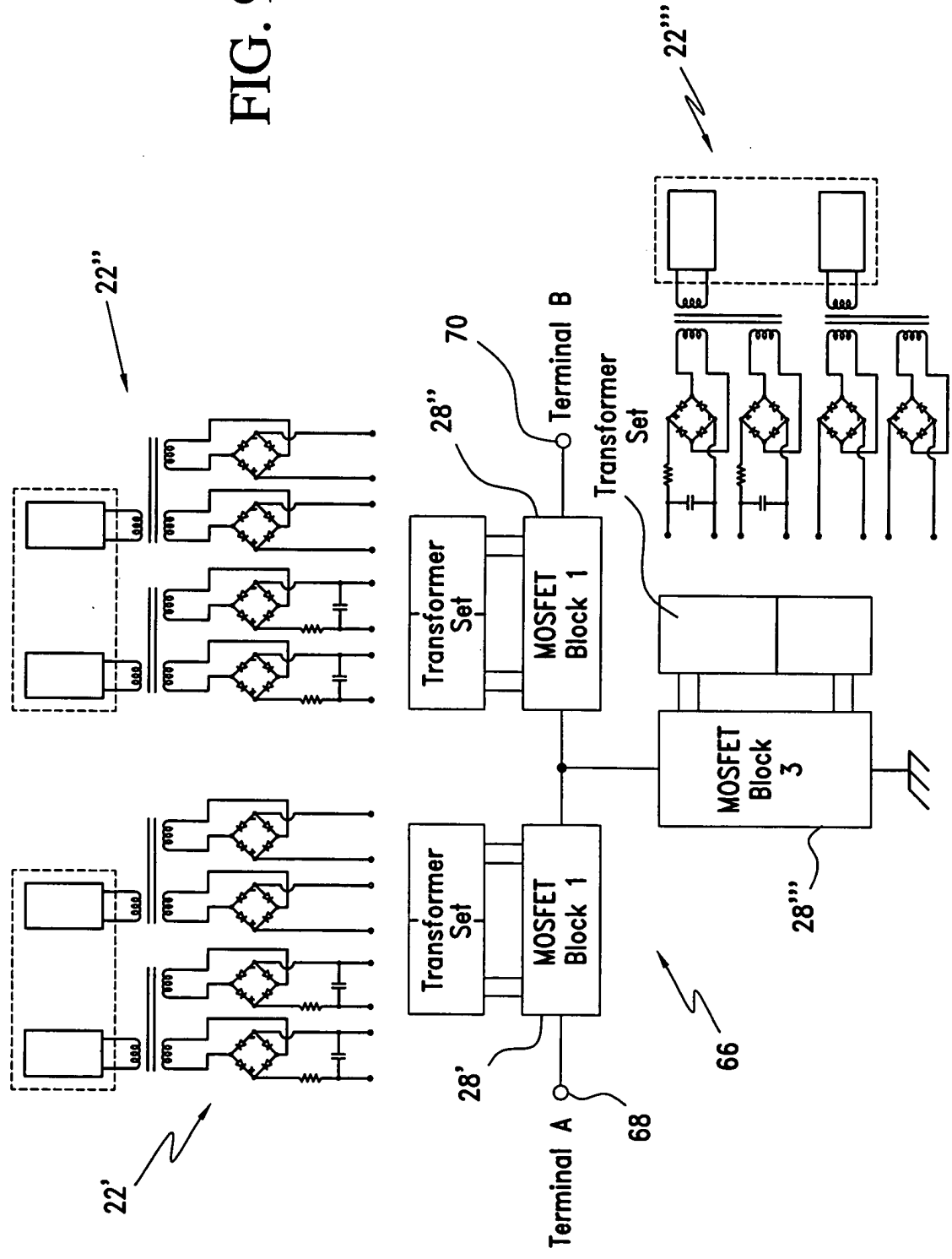


FIG. 9

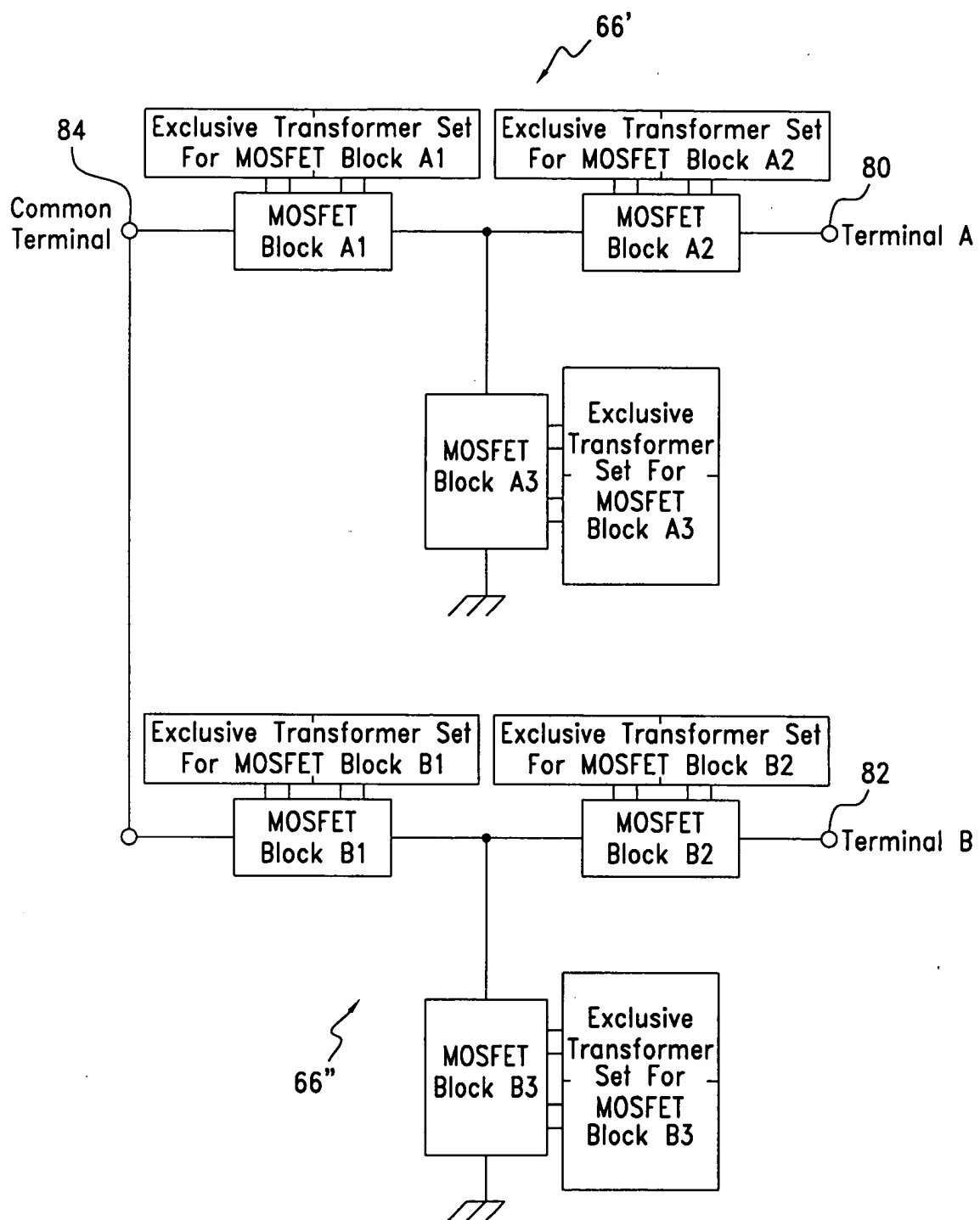


FIG. 10

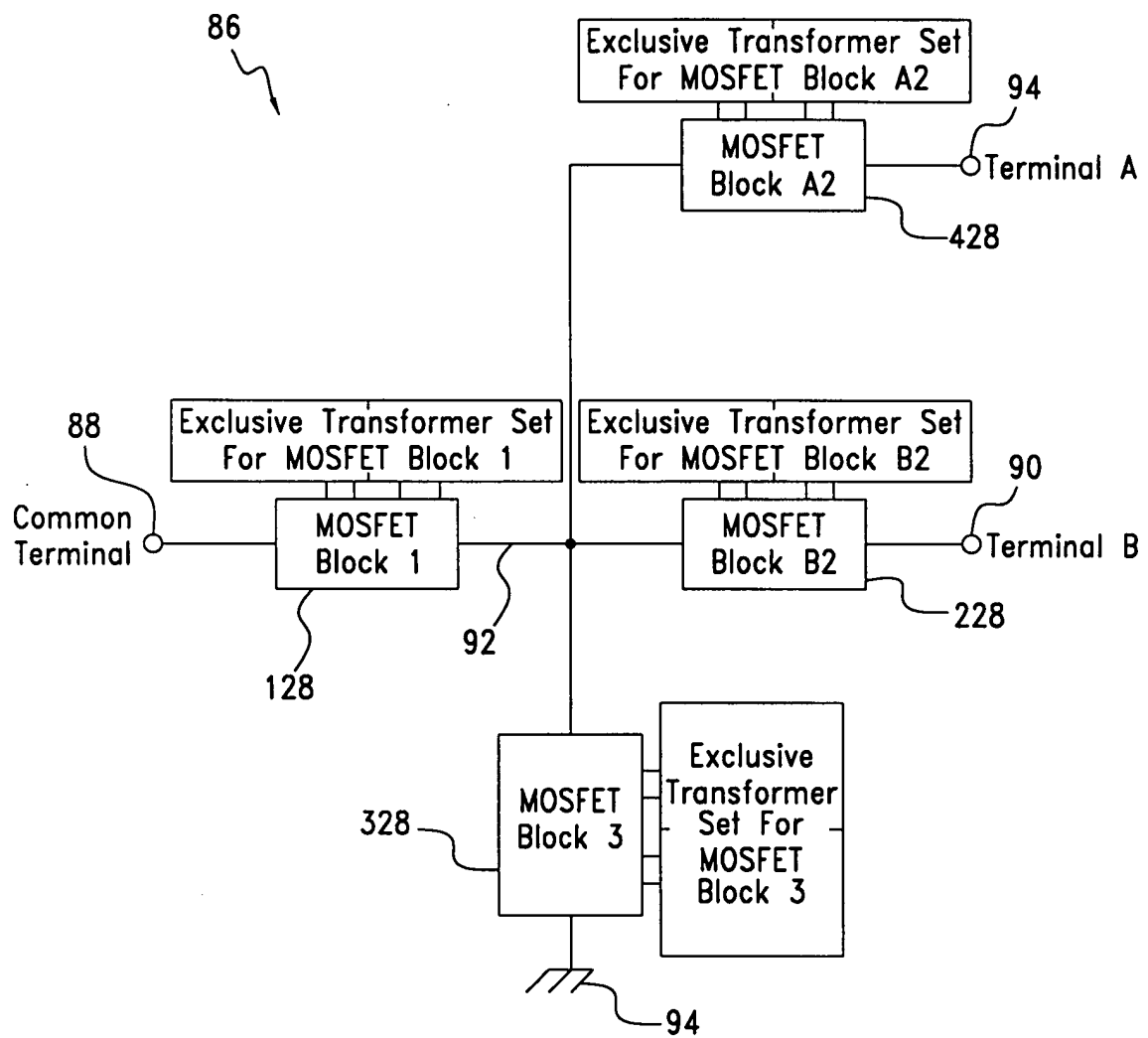


FIG. 11

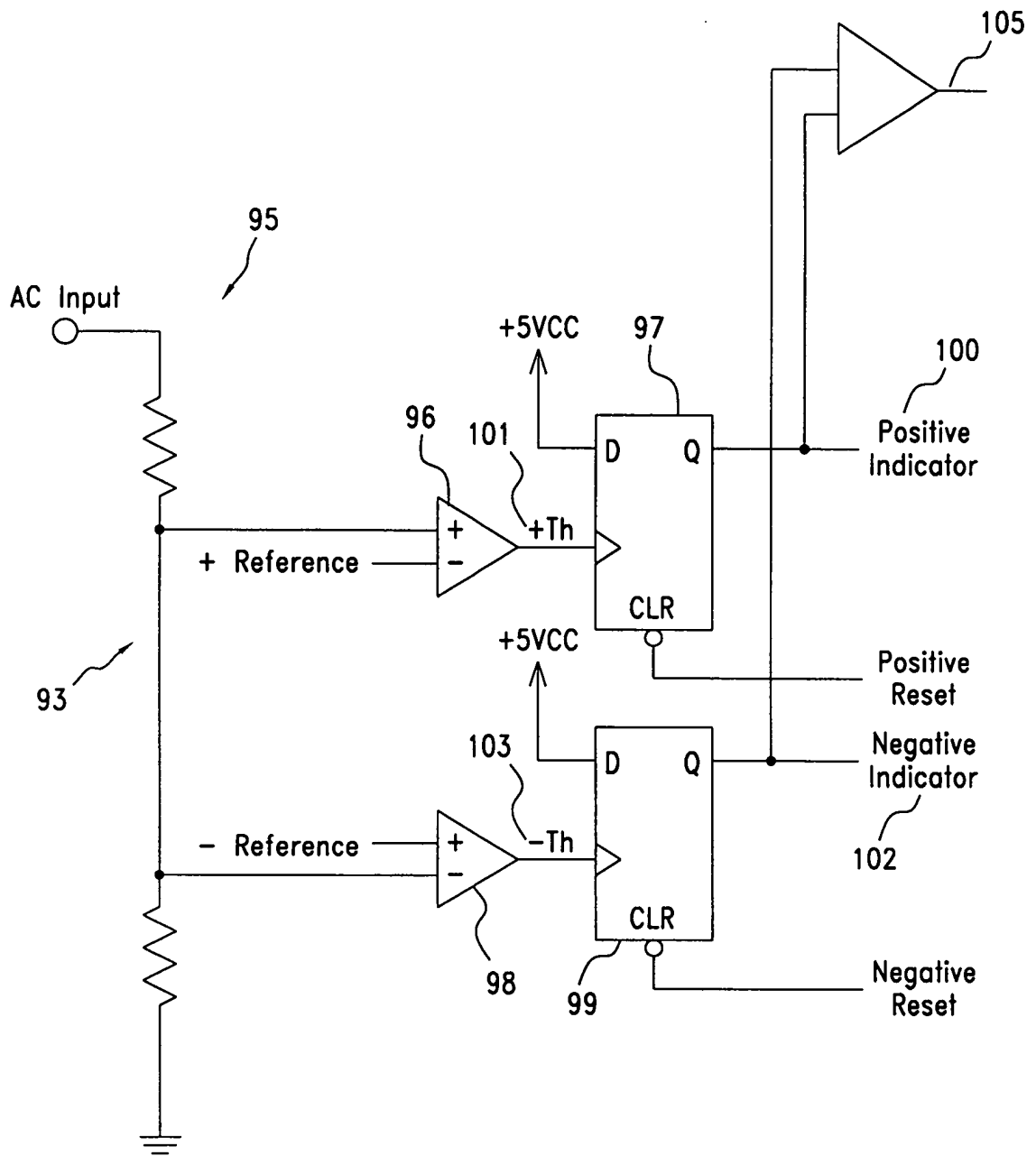
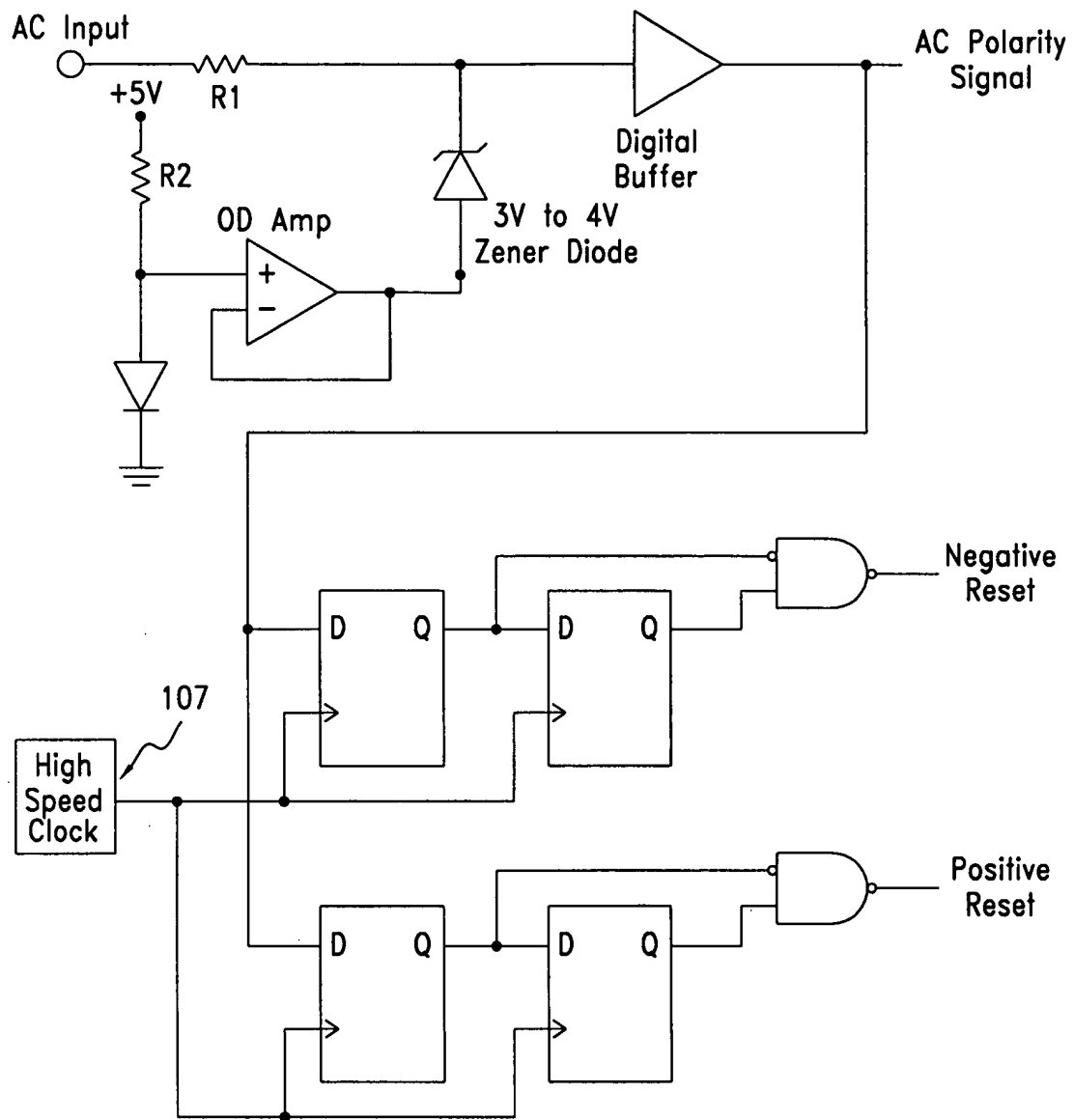


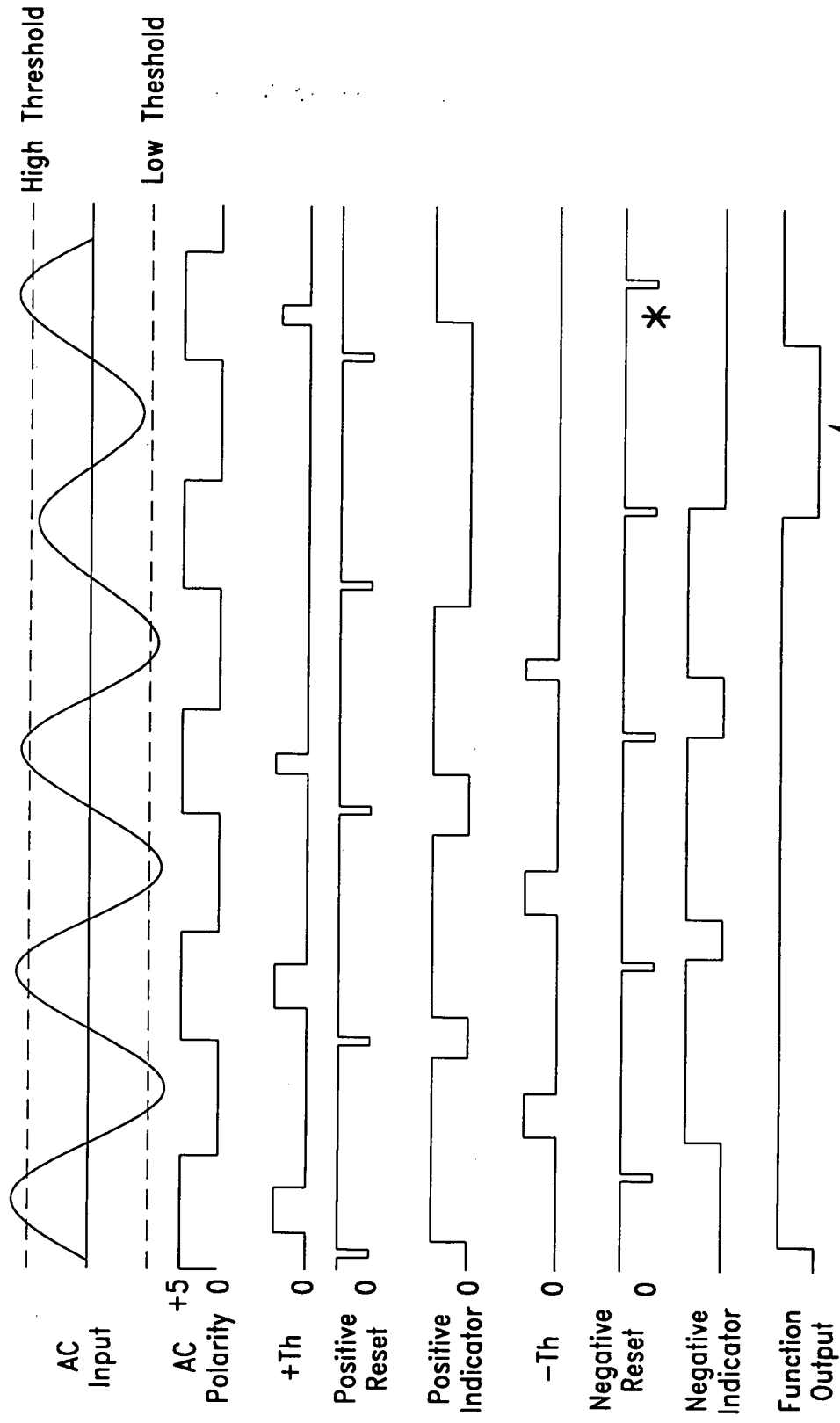
FIG. 12



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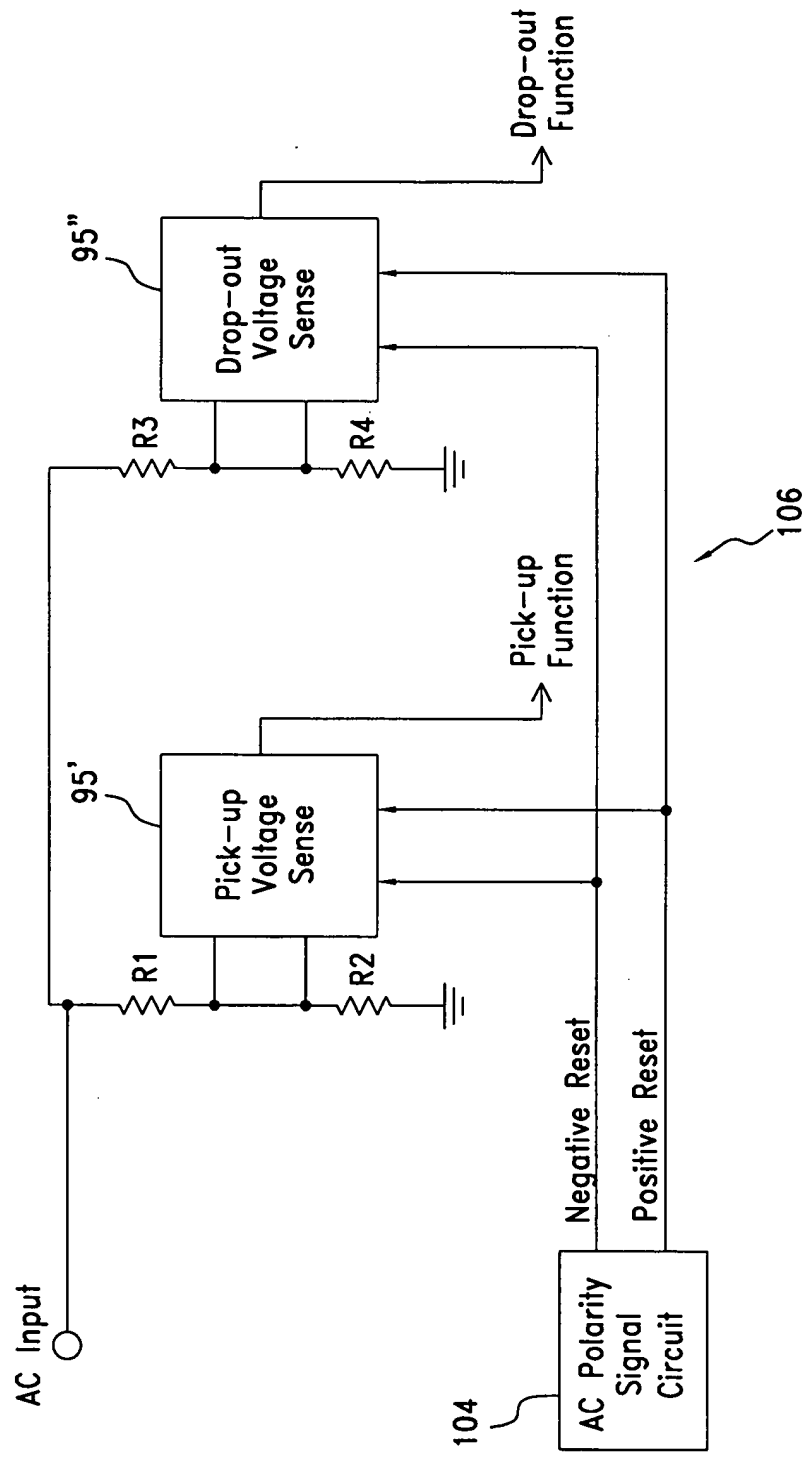
FIG. 13
AC Polarity Signal Circuit

FIG. 14
AC Voltage Sense Waveforms



Function Output * Negative Indicator OR Positive Indicator Single Cycle Reaction

FIG. 15



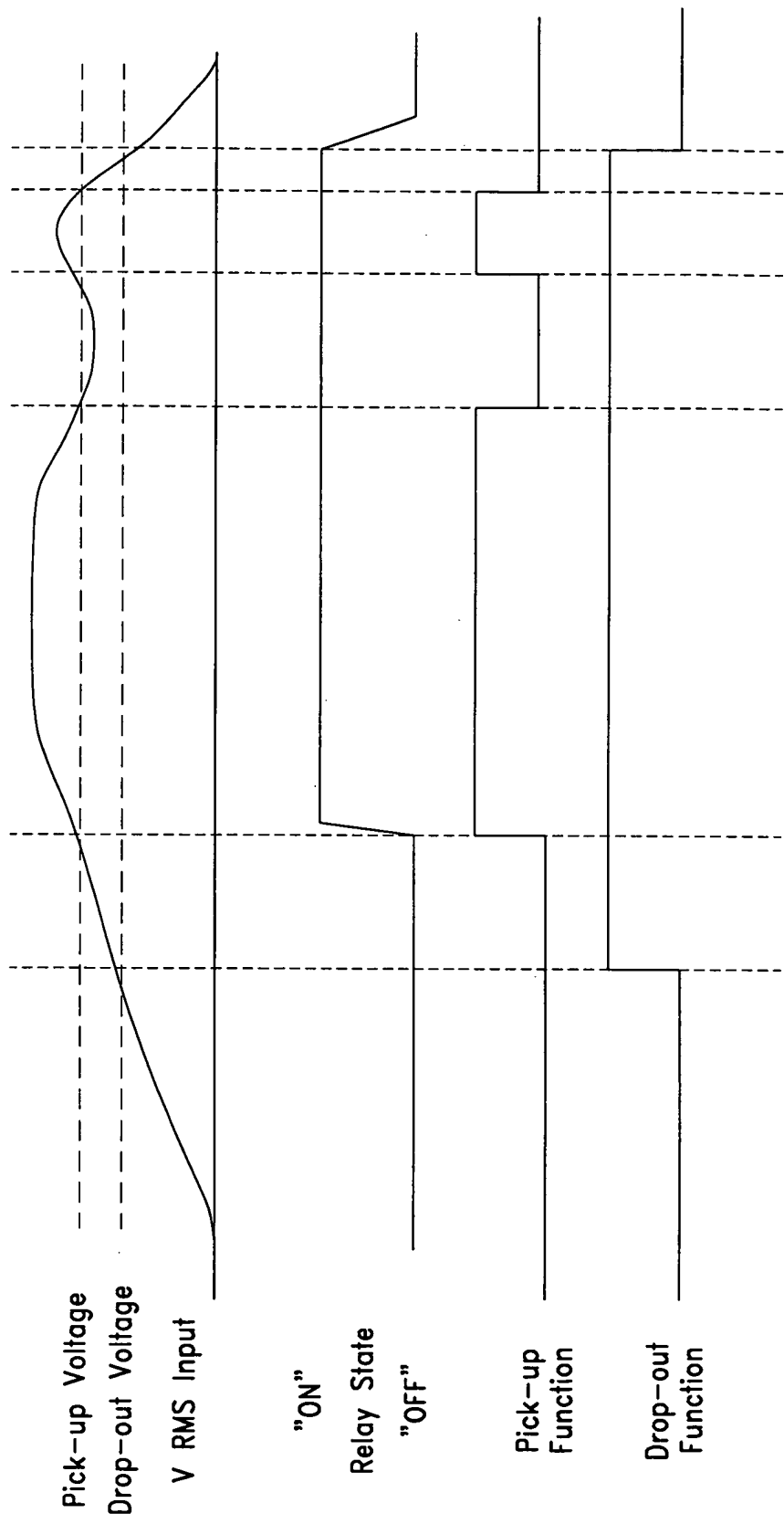
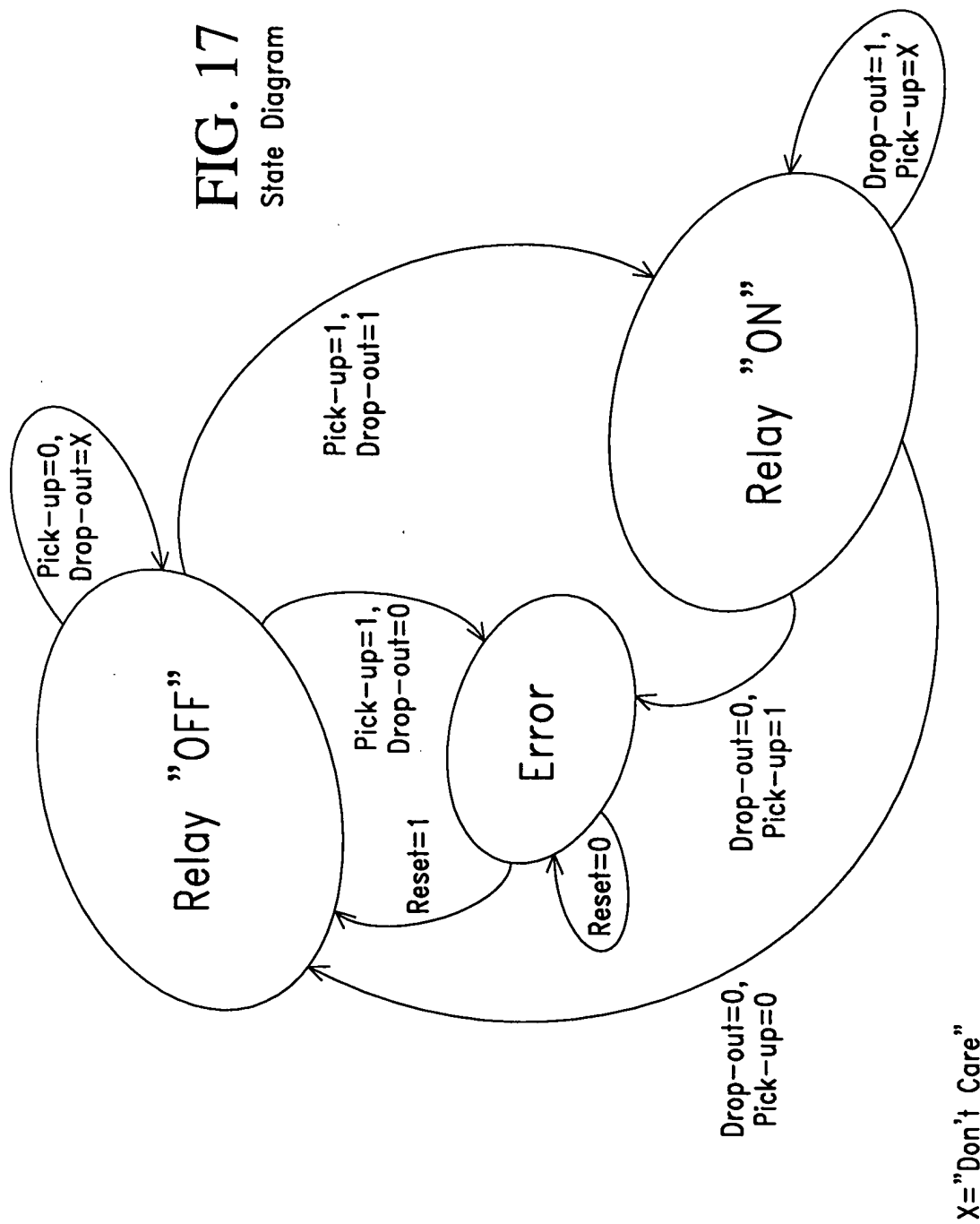


FIG. 16



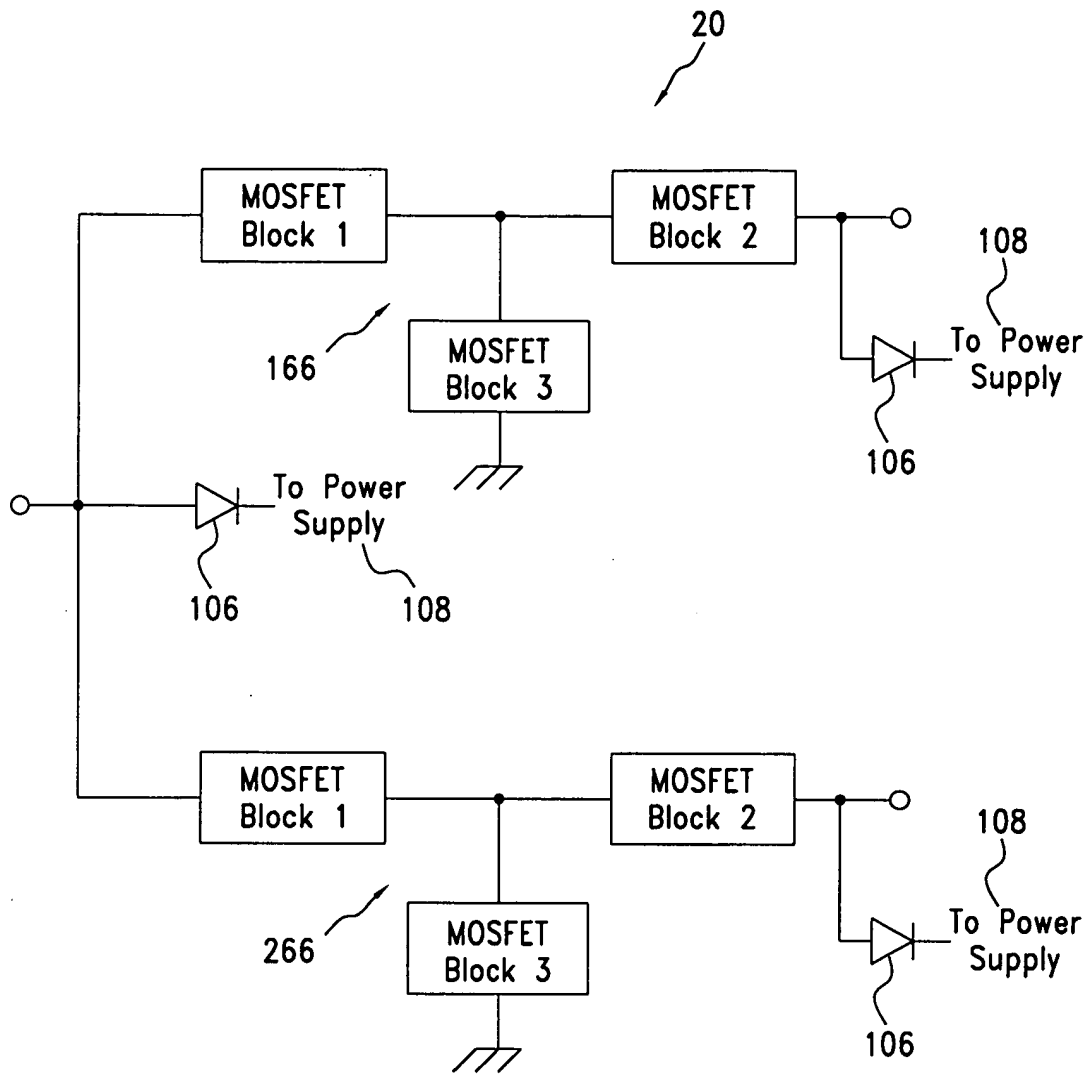


FIG. 18

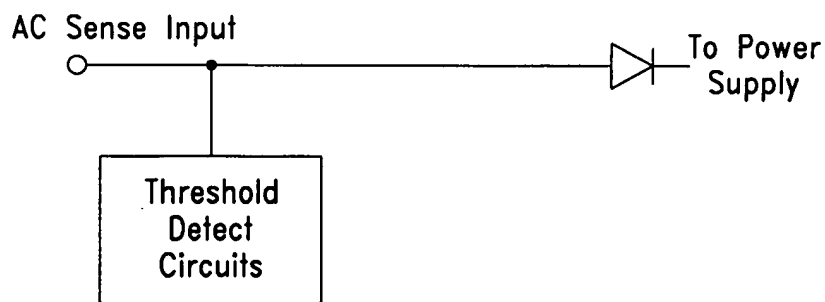


FIG. 18a

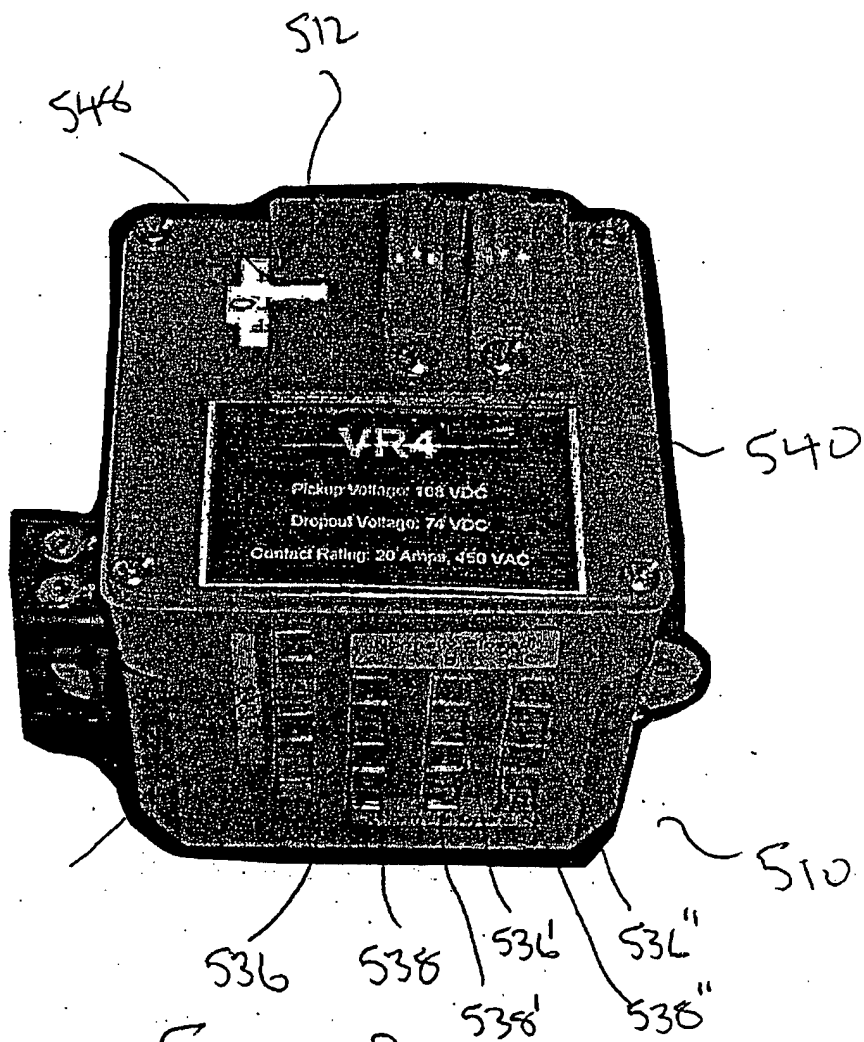


FIG. 19

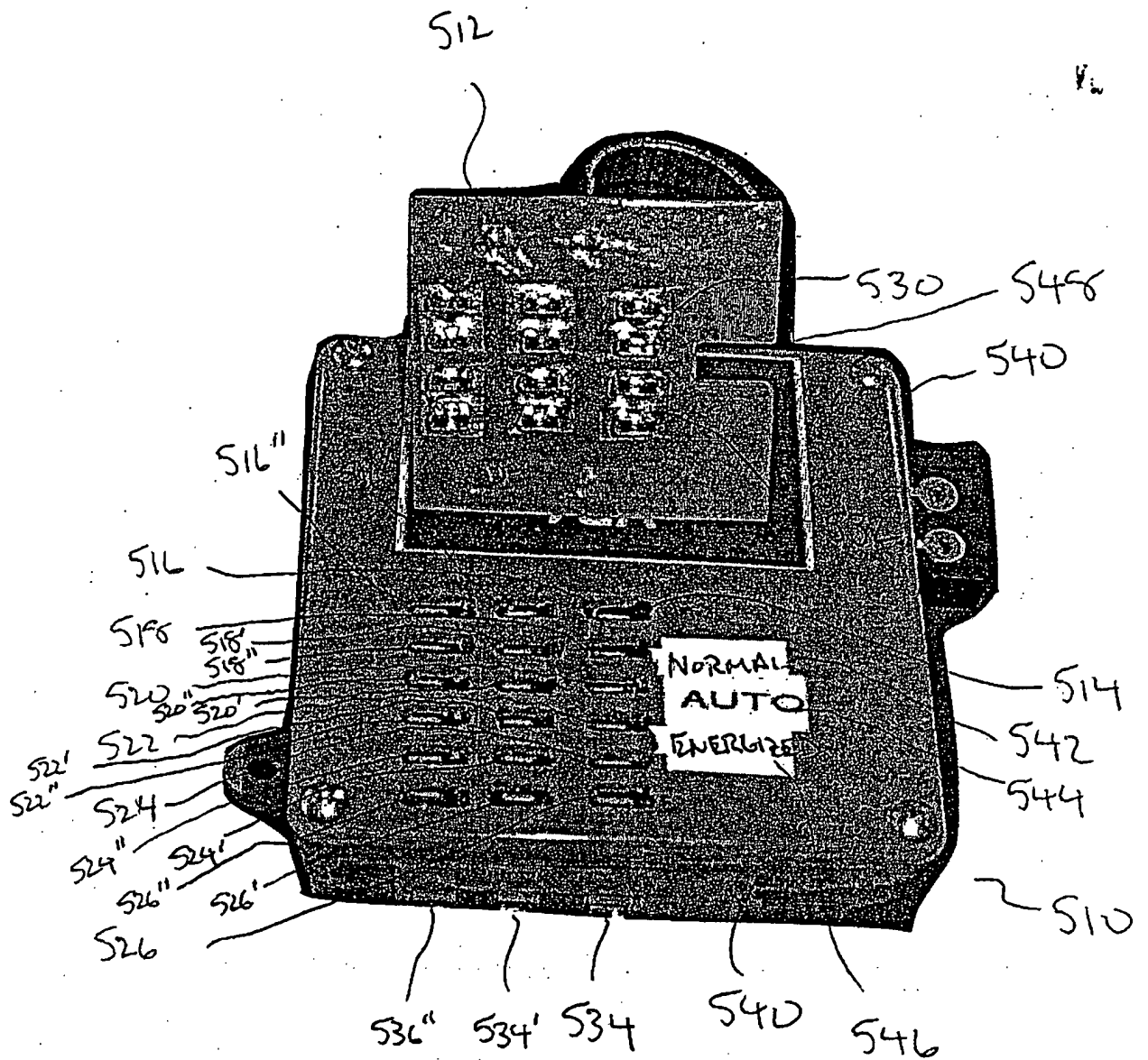


FIG. 20

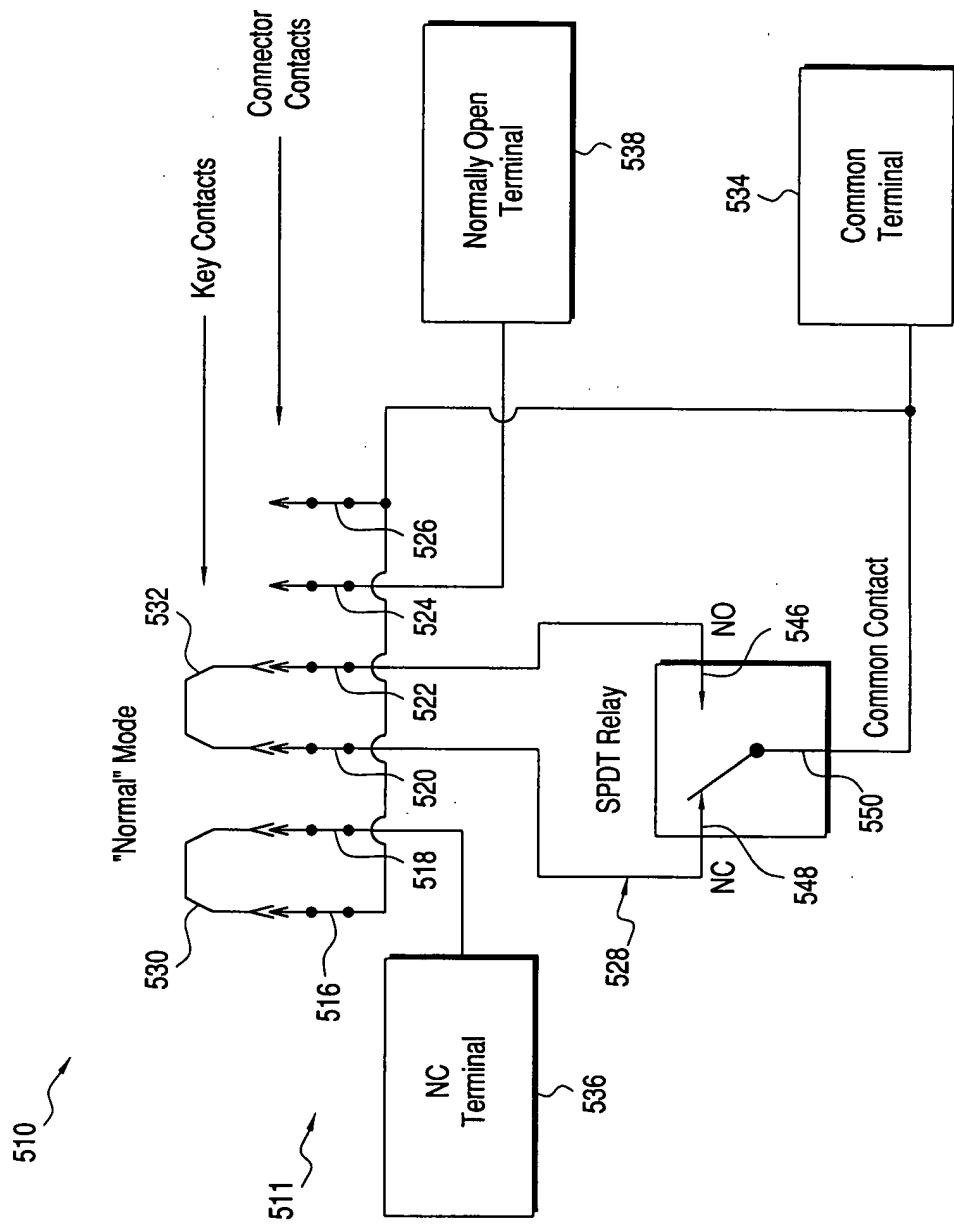


FIG.23

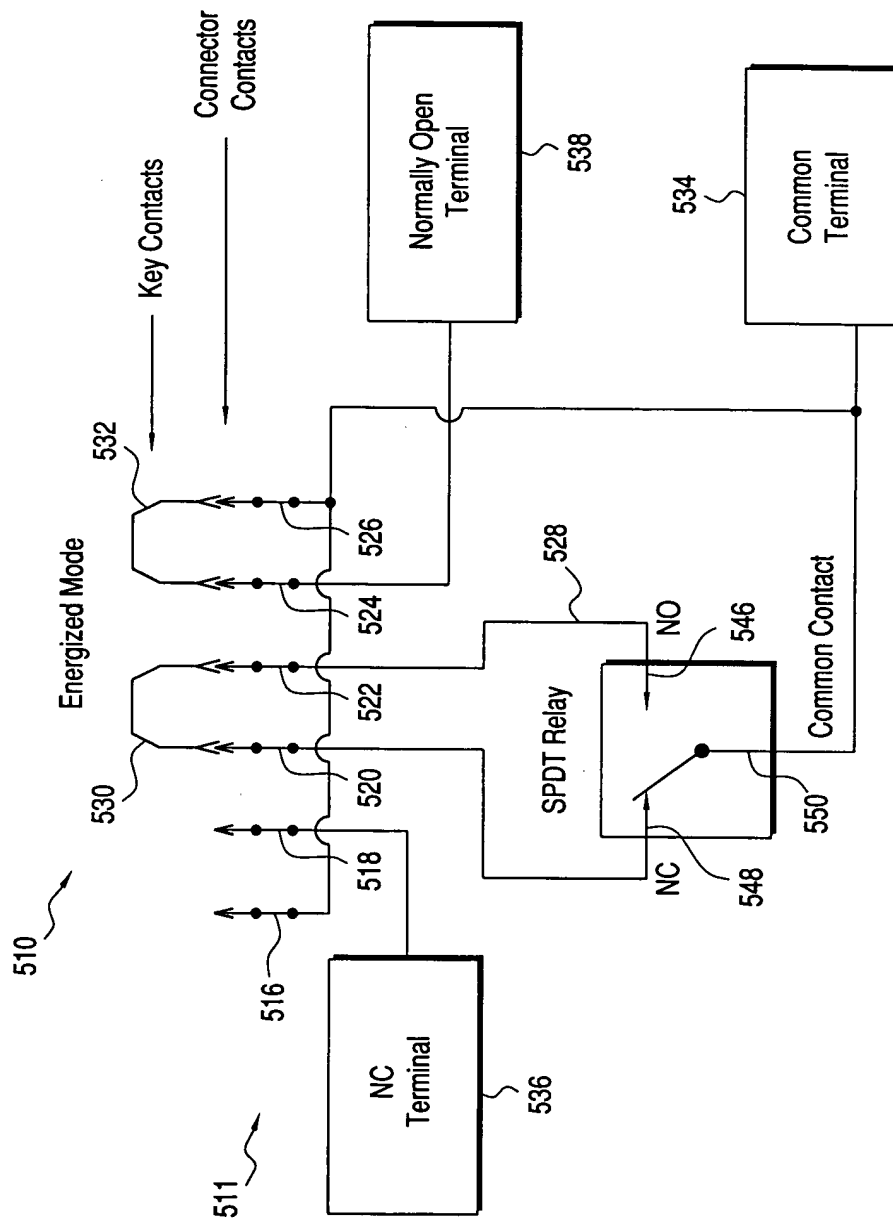


FIG.24

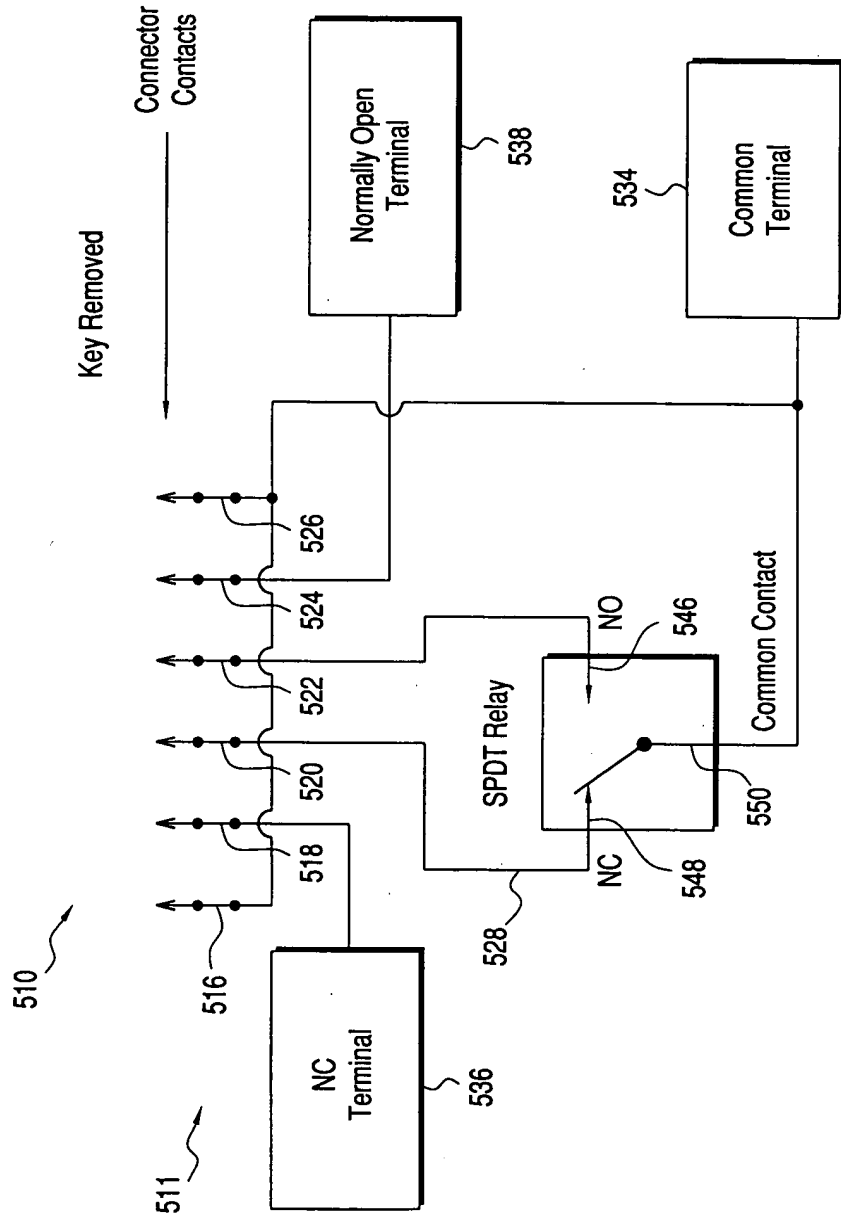
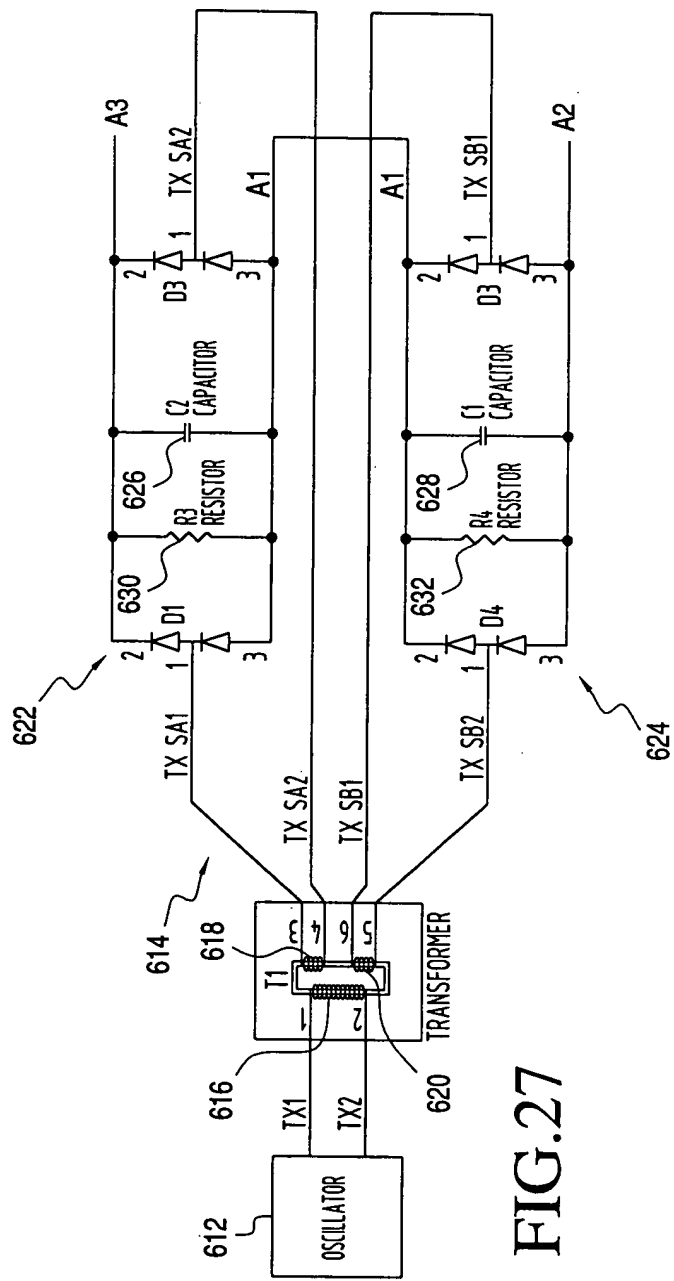
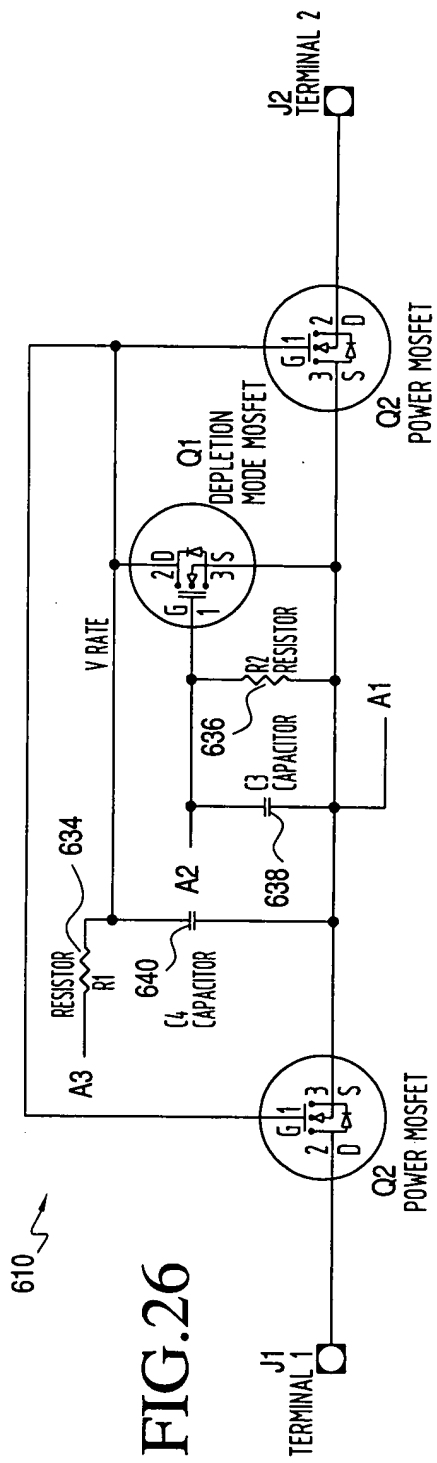


FIG.25



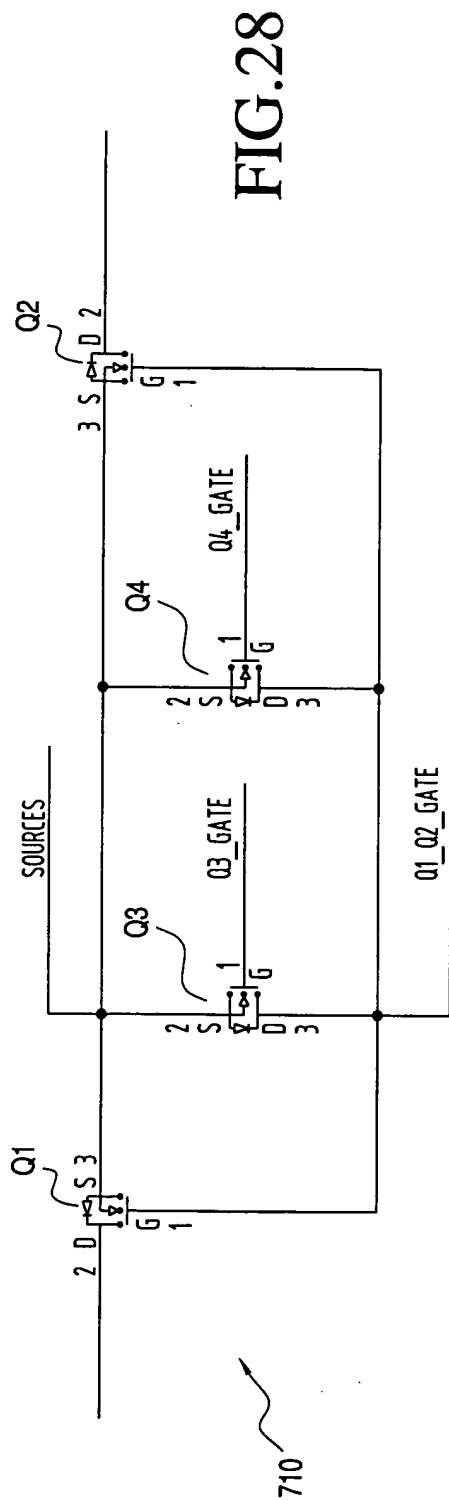


FIG. 28

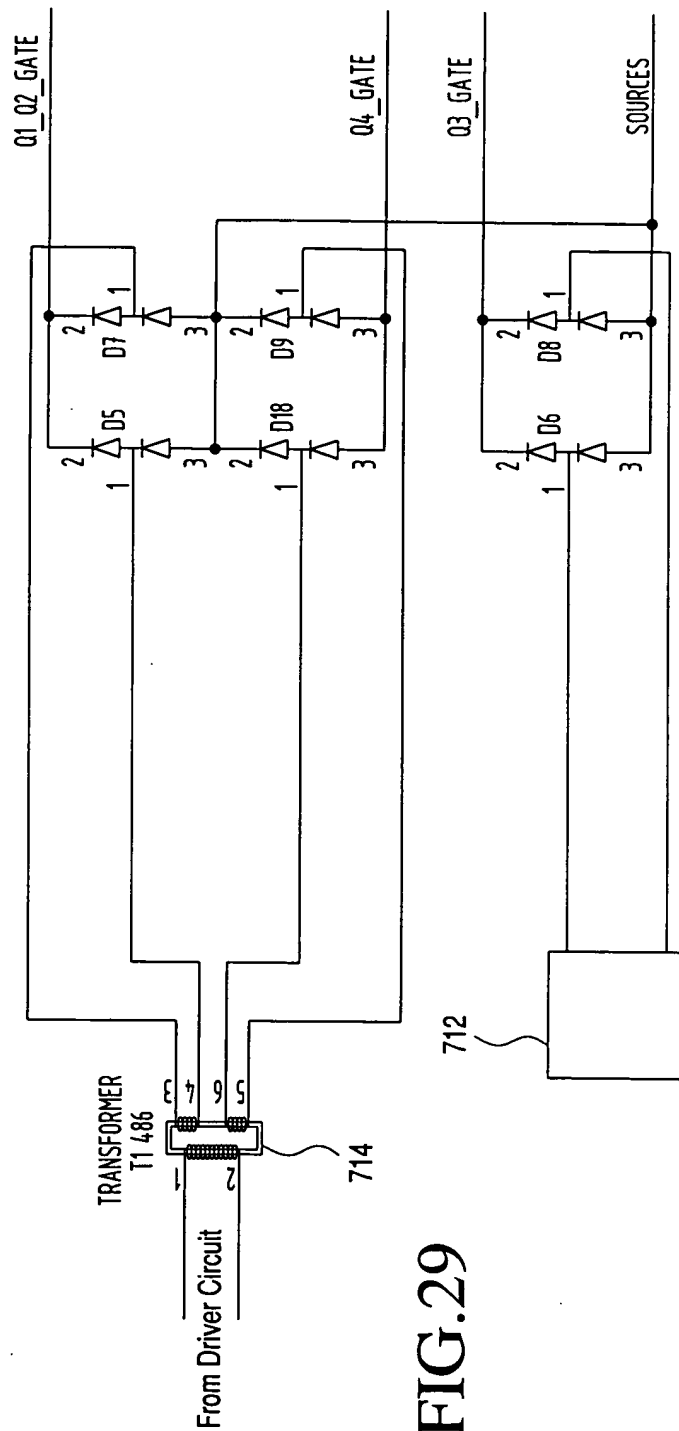


FIG. 29